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Binge Eating Disorder and the Nutrition Care Process

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Introduction

Binge Eating Disorder (BED) is an eating disorder that causes reoccurring episodes of eating large amounts of food in a short period of time; accompanied by feelings of guilt, shame, and embarrassment (National Eating Disorder Organization, 2018). BED is a relatively new eating disorder diagnosis, only having been recognized in the Diagnostic and Statistical Manual of Mental Disorders revision (DSM-IV) in 2013. Due to this short time span, there is a demand for further screening and understanding of the disorder. A registered dietitian (RD) holds a valuable role in the treatment of BED by conducting nutrition assessments, planning interventions, and monitoring patient changes. Through the use of the nutrition care process, a RD is better able to assess and understand the patient's condition and develop an intervention specific to the patient's needs.

DSM IV Diagnostic Criteria

According to the American Psychiatric Association's (2013) DSM-IV's criteria, qualifying symptoms of BED include: episodes reoccurring once a week for three months, differing from other eating disorders (anorexia and bulimia nervosa), marked distress regarding binge eating, and at least three of the following criteria within their episodes:

- eating much more rapidly than normal
- eating until feeling uncomfortably full
- eating large amounts of food when not feeling physically hungry
- eating alone because of feeling embarrassed by how much one is eating
- feeling disgusted with oneself, depressed, or guilty afterwards

Pathophysiology

Currently the pathophysiology of BED is poorly understood. Biologically, BED is a severe mental illness that manipulates the body into the uncontrollable binge episodes. No genes have specifically been identified for BED alone, however, there are preliminary studies that support the hypothesis of abnormalities in neurotransmitters that attribute to the development of BED. According to the *Association of a functional serotonin transporter gene polymorphism with binge eating disorder* study, the inhibition of serotonin and its receptor 5HT may contribute to the vulnerability to develop BED. The 5HT receptor's ability to be compromised is due to polymorphism of the 5HTTLPR gene (Monteleone et al, 2006). With skewed activity caused by this manipulation, impairments of the 5HT receptor causes inhibition of serotonin. This study has proven correlations with other mental illnesses including anorexia, bulimia nervosa, and thoughts of suicide. With such studies suggesting genetic variables linking to BED, there might be further reasoning to break the stigma of personal blame BED can create (Easter, 2012).

Etiology & Epidemiology

Many individuals with BED have a predisposed idea of body image that can be influenced by environmental behaviors, familial relationships, and past restrictive eating habits. Environmental factors include a low degree of social support, childhood abuse, and societal pressures of attaining unhealthy or unrealistic degrees of thinness (Nelms, 2016).

The epidemiology of BED is still in the early stages because it has only been identified as its own disorder within the past six years (Marino & Gugusek, 2017). BED is found to be more common in young women, but has been found to develop in men too. Typically, BED is diagnosed in later years between the ages of 30-50, but is onset during adolescence (Nelms, 2016). It is common for BED patients to be obese or overweight from yo-yo dieting behaviors that cause

them to gain excess weight in return; although they can possess a healthy weight too. Obese binge eaters often have other co-morbidities such as hypertension, asthma respiratory illnesses, and cardiovascular disease (Otang-Mbeng et al., 2017). Constant dieting behaviors, alongside other chronic disorders, can also contribute to metabolic syndrome creating a more challenging history for an RD to assess.

Nutrition Assessment

In effort to treat a patient with BED, an RD must first perform a routine nutrition assessment. Nutrition assessments are used to gain an understanding of a patient's current diagnosis, past history, food and nutrition related background, anthropometric body measurements, biochemical data and current lifestyle behaviors. Altogether, the RD utilizes this information to develop a pathway of intervention while partnering with the patient to create goals to strive towards. When working with BED patients it is important for the RD to check past dieting histories, temperament traits, food rituals, nutrition related knowledge, and stress related triggers (Escott-Stump, 2015). The use of eating disorder screening tools such as the *Eating Attitudes Test* or the *Socially Prescribed Perfectionism Scale* is also essential to learning more about the patient's condition and behaviors. The *Binge Eating Disorder Screener - 7* is a screening tool used specifically for adults displaying BED symptoms, but is not advised to be used as a diagnostic tool.

Patients History

Learning about the patient's personal history is a practical way to understand their beliefs, attitudes, and daily norms. This includes learning elements such a socioeconomic status, social network/at home support, and other daily factors that can impact their nutritional intake. Each factor holds an integral part in understanding how the patient may have developed their current condition and the most efficient way of treating it. Specific to BED patients, an RD will

want to understand their dieting history, nutrition related knowledge, views on body image, self-esteem status, and means of social support. The use of motivational interviewing may be used to uncover insightful data by asking open-ended questions, displaying acts of empathy, and reflecting on their responses.

A family member of mine, (AM), was first diagnosed with BED when she was 44 years old. She has a history of yo-yo dieting since she was a teenager, and was highly influenced by her mother's intuition and comments from constantly being a dieter herself. Although she never was admitted to counseling or clinical help due to her extreme food restriction in her youth, she looks back now and knowing she should have sought out help before it got worse. Between her childhood and mid-adulthood, she had taken part in many popular diets including the Atkins diet, grapefruit diet, low carb diets, and weight watchers trying to keep her thin figure; but always allowed "food to find her" in her time spent alone. Her serious binge eating episodes weren't addressed until her mid-forties when she finally explained her poor relationship with food and struggle with weight to her primary doctor.

Food and Nutrition Related History

Food and nutrition related information is obtained throughout the assessment to understand the patient's current nutritional status. This data is used to investigate the many factors that can effect nutritional intake including the patient's food preparation skills, physical activity levels, and ability to consume their meals. The overarching goal of this assessment is to collect dietary information and to be able to relate the patient's current intake compared to appropriate guidelines (Nelms, 2016). The RD can learn this information in a variety of methods by either conducting a 24-hour recall, assessing a patient's food log, use of a food frequency indicator, or

an assessment of a calorie count. When evaluating the patient's caloric intake, the RD will identify if it is within their acceptable energy range, or how it differs from their daily needs. It is important to note that identifying foods as calories or numbers may be triggering to the patient's mental instability about food and should be talked about within the health care team when deciding how to implement an appropriate intervention. The RD should also pay attention to the patient's use of fad diets or nutrition misconceptions within their beliefs to further base the need for education and counseling.

Anthropometrics

"Anthropometry is the measurement of body size, weight, and proportions" and are commonly used to assess measurements compared to healthy standards (Nelms, 2016). RD's may take anthropometric measurements to formulate energy needs and assess body composition changes based on the data found. Common anthropometric measurements include height/stature, weight, and BMI along with other body composition tests. Depending on the BED patient's status, assessing body weight or BMI may be an emotional trigger, worsening the patient's demeanor and self-esteem. AM always gave off the impression that weight did not bother her until it came time to stepping on the scale, when anxiety would accompany her along with the recurring image of defeat. Although, weight measurements should be handled with confidence many overweight or obese BED patients may need to address these measurements in effort to create an understanding of the development of co-morbidities.

Biochemical Data

Gaining a strong understanding from biochemical data and medical tests can guide nutrition interventions to take place based on specific markers. Biochemical data can be obtained

though lab testing, as well as other procedures that can assist in the identification of organ function. Common biochemical markers are found in blood, urine, feces, and tissue samples (Nelms, 2016). Specific lab values that are screened for in BED patients are serum cortisol, sodium, potassium, and chloride electrolytes; blood urine nitrogen, creatinine, glucose, urinary acetone, cholesterol, and triglycerides (Escott-Stump, 2015). Other procedures the RD may conduct include testing blood pressure, pulse, and performing a nutrition physical focused exam. At this time, there no biochemical tests used to diagnose BED, but the need to monitor body changes is important for the screening of complications that could arise due to infrequent eating patterns.

AM's brief time spent with an RD after her initial meeting with her doctor didn't include anthropometric measurements or biochemical data markers, but rather was focused on her food intake and conversation of her past eating behaviors. She remembers sharing with the RD her impulsive behaviors and what she most often consumed during her episodes. "Anything quickly consumable in the pantry or fridge" was usually what she tended to binge on. Foods such as crackers, chips, ice cream, and candy were easily accessible and favored; however, in the realism of a binge the type of food she was consuming didn't really matter.

Nutrition Diagnosis

There are multiple nutrition diagnoses that can be appropriate for BED patients depending on their health status and symptoms. Appropriate diagnoses may include excessive food intake, undesirable food choices, food and nutrition related knowledge deficit, not ready for lifestyle change, disordered eating patterns, and self-monitoring deficit. The diagnoses is chosen by the RD based on the data and underlying symptoms uncovered in the nutritional assessment. Diagnoses are made to be straightforward and treatable, but should be chosen with caution to the patient's vulnerability and mental status.

Excessive food intake can be easily identified and diagnosed based on a food intake recall. It also can be established based on recent weight gain, or excess weight in correlation to binge eating episodes. Although weight is an easy measurement taken, it is important to remember “weight loss is not a primary goal in eating disorder patients due to it’s ability to increase the patient’s shame cycle” (Fortunato Greenberg & Burnell, 2015). Undesirable food choices and food and nutrition related knowledge deficit could be chosen if the patient doesn’t have a clear understanding of nutrition and its impact on the body. This may be an occurrence of frequent dieters who have gained nutrition bias based on false information and dieting behaviors. Not ready for lifestyle change may be an appropriate diagnosis if the patient is not ready or willing to make an effort to change their current behaviors and attitudes. Lastly, self-monitoring deficit would be most appropriate if the patient displayed challenges evaluating and recording their episodes, intake, and feelings or behaviors in correspondence to their symptoms. This diagnosis should be chosen when there is a lack of data being recorded to track personal progress.

There are various other conditions that may be associated with BED that contribute to a patient’s diagnosis and symptoms. Other problematic symptoms that may be addressed are gastrointestinal discomfort, electrolyte imbalances, and stress related factors. Although there can be multiple diagnoses at hand, the main diagnosis should be chosen based on the highest priority needed to aid the patient’s condition. Examples of three possible Problem, Etiology, Symptom (PES) statements to describe a diagnosis for BED are:

1. Excessive oral intake related to binge episodes as evidenced by food diary and intake records when under stress.
2. Self-monitoring deficit related to lack of value to make behavioral changes as evidenced by incomplete food log and inability to recollect frequency of binge episodes.

3. Disordered eating pattern related to frequent binge eating episodes as evidenced by loss of self-control while consuming large amounts of food in short periods of time three or more times a week.

AM was diagnosed with BED based of the following symptoms: feelings of remorse after bingeing, consuming excess calories in short periods of time frequently throughout the week, eating until uncomfortable, and difficulty breathing. The pressing nutrition concern that posed in AM's case was her unhealthy relationship with food that influenced her reoccurring binge episodes. An appropriate PES statement to her case would have been "excessive oral intake related to rapid binge eating episodes, as evidenced by increased intake records on days binge eating occurred."

Possible Interventions

The development of eating disorder interventions are based on a team approach to establish the best fitting treatment for the patient. Because of the complexity of illness in eating disorders, treatment requires a skilled interdisciplinary team of health professionals to care for the patient through nutrition and psychiatric behavioral management (Nelms, 2016).

Nutrition interventions are prioritized around the following domains: intake, counseling and education, and coordination of care. Nutrition education and counseling are commonly paired together to supplement the needs of behavioral change while educating the patient on the benefits of the changes they wish to make. Through the spirit of motivational interviewing the RD should collaborate with the patient when discussing their disorder and work together on formulating goals for the patient to work towards. Counseling interventions could include working on coping skills, identifying episode triggers, working towards body image positivity, and creating self-monitoring tactics. The RD could also introduce the patient to mindfulness-based eating

awareness and meditation that is designed to address core issues of BED (Escott-Stump, 2015). This awareness method is to help control responses to stress and emotions, make conscious food decisions, work on hunger and satiety cues, and seek self-acceptance (Kristeller and Wolever, 2010). Further counseling needs can be met by a referral to a psychiatrist, where a common plan of treatment is with use of cognitive behavioral therapy (CBT). CBT is used to help treat all eating disorders but has shown to be highly effective in BED with greater than 50% of patients achieving remission (Nelms, 2016). AM's treatment was mainly based within a psychiatrist's care working on body image and self-acceptance practices. Her time spent with and RD was limited to four sessions where they discussed ways to overcome her binge episodes and recurring urgencies.

It's important that the RD takes the time to assess where the patient stands emotionally and physically before each appointment to be able to provide them with the quality care they deserve. Providing the patient with their own sense of autonomy, opinion, and evocation will increase the patient's ability to work with the RD and will likely have more positive outcomes for the patient overall. Although, eating disorder cases are often associated with other emotional challenges it's necessary that the RD stays within their scope of practice and understands when to refer to other health care providers. Coordination of care is optimal to the success of BED patients. The RD may choose to consult with the physician or a psychiatrist if the patient needs further therapy or counseling.

Interventions based on intake are focused on working towards normalizing food intake patterns. Working with the patient to eliminate restrictive eating patterns and encouraging them to adapt to the mindfulness-based eating awareness training methods is of highest priority. Alter-

ing diet patterns to be more appropriate to their body needs could be a possible intake intervention, specifically if the patient had other co-morbid diagnoses that require attention. However, the goal of intervention for BED is to assist the patient in gaining their own normal eating patterns back, not supplying them with new restrictive guidelines on how to fuel their body.

BED patients aren't often prescribed medication as a first resort to treat binge eating episodes but are rather referred to cognitive behavior therapy instead (Mayo Clinic, 2019). BED patients may already be on antidepressants or are prescribed them as psychotherapy influence if necessary. However, many antidepressants side effects can impact nutritional appetite and should be closely monitored for other symptoms including constipation, dizziness, nausea, dry mouth, and weight changes. The first FDA approved medication to treat BED was named Lisdexamfetamine dimesylate (Vyvanse), and is more commonly used to treat ADHD (Mayo Clinic, 2019). It's overall effect is to help balance impulsive behaviors, not to directly avoid binge eating episodes. Although, the use of Vyvanse may reduce the number of overall binges. Typical side effects of Vyvanse that should be monitored include weight loss, nausea, vomiting, constipation, dry mouth, restlessness, and sweating (Mayo Clinic, 2019). Topiramate (Topamax), an anticonvulsant, has also been shown to decrease the occurrences of BED but it's prevalent side effects including blurred vision, burning sensations, and confusion limit its usefulness (Escott-Stump, 2015). Although medication options are available to assist in treating BED, counseling and education practice should be the first method used in treating the illness. AM has never been prescribed such medications; however, she has been taking antidepressants for the past fifteen years.

Monitoring and Evaluation

Once intervention plans have been made, the RD should monitor for patient changes. Monitoring food intake and reoccurrence of binge episodes will be of importance to understand

how the patient is dealing with the condition, and will prove how effective the current intervention plan is working. Encouraging the patient to keep a journal to record their feelings, successes and episodes would be helpful to refer back to if manageable. Anthropometric measurements including weight, body composition, and BMI should also be monitored if deemed appropriate, specifically if the patient is overweight/obese and has a goal of no further weight gain or possess chronic co-morbidities. Another importance is evaluating the patient's changes in attitudes, beliefs, and behaviors related to their condition, demeanor, and quality of life. Because many eating disorder patients can be in a fragile state of mind, evaluating changes in attitude can act as a impactful tool in noticing how they're coping with their condition. Furthermore, the RD should monitor for any changes in BED symptoms and outside dieting behaviors that could relay in an even bigger relapse of binge eating episodes.

Prevention & Conclusion

It's proven that "individuals affected by BED show significantly lower quality of life, perceived health, and higher psychological distress" compared to non-binge eaters, justifying the need for preventative measures (Amianto et al., 2015). Prevention of BED can be made through primary and secondary acts with hope to decrease the overall development of BED and other eating disorders. Movements such as the Positive Body Image Movement, are becoming more prevalent in today's society, making an effort to increase self-esteem and defeat unrealistic body image stereotypes. Through more public awareness opportunities such as The Body Positivity Movement, messages displaying social acceptance of all body sizes can make a positive effect to decrease the occurrence of eating disorder development. Further public education should also be promoted to diminish the unrealistic beauty standards social media in today's society now represents.

Preventive measures can take place in schools, public health centers, and other community establishments to supplement primary interventions. Education on the dangers of dieting behaviors, reducing weight-based acceptance stigmas, and increasing self-esteem support are all relevant intervention discussions. In parallel with primary interventions, health professions should be taking the necessary steps in screening youth and adult individuals for onset behaviors that could lead to eating disorders. Creating an accepting and safe atmosphere is integral to helping patients find the confidence to come forward about their poor relationships with food. AM states that hadn't she "felt so alone in her struggles with body dysmorphia and food acceptance as a child, she could have limited her difficulties as an adult." The more preventive steps that can be made to avoid the development of eating disorders, the more likely individuals will be able to have better perceived happiness and quality of life.

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